

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Please replace the paragraph beginning at page 3, line 11, with the following amended paragraph:

~~“SEQ ID NO: 1 is set out in Figure 1 hereto and in the sequence listing. The sequence shown in SEQ ID NO: 1~~ is derived from *Lepista irina*. *Lepista irina* is a commercially available organism (CBS 458.79, Centraalbureau voor Schimmelcultures, Baarn, NL).”

Please replace the paragraph beginning at page 3, line 14, with the following amended paragraph:

“The nucleic acid according to SEQ ID NO: 1 comprises an open frame (ORF) coding for 361 amino acids. SEQ ID NO: 2, ~~set out in Figure 2 hereto,~~ shows the corresponding protein sequence. The enzyme encoded is a polyvalent peroxidase which, for the purposes of this specification, will be referred to as oxidoreductase.”

Please delete the paragraph beginning at page 4, line 14.

Please replace the paragraph beginning at page 11, line 18, with the following amended paragraph:

“**[[Figure]] SEQ ID NO: 1:** depicts the cDNA sequence of the oxidoreductase derived from *Lepista irina*.”

Please replace the paragraph beginning at page 11, line 20, with the following amended paragraph:

“**[[Figure]] SEQ ID NO: 2:** depicts the amino acid sequence of the oxidoreductase derived from *Lepista irina* in one-letter code.”

Please replace the paragraph beginning at page 11, line 23, with the following amended paragraph:

“Figure [[3]]1:shows the conversion of β,β -carotene over time (\square -carotene: dotted line; \square -ionone: drawn through line”

Please replace the paragraph beginning at page 11, line 26, with the following amended paragraph:

“Figure [[4]]2:shows the temperature optimum determination of the oxidoreductase.”

Please replace the paragraph beginning at page 11, line 18, with the following amended paragraph:

“Figure [[5]]3: depicts a GC-chromatogram of the volatile nor-isoprenoids from the conversion of β,β -carotene by the oxidoreductase from *Lepista irina*.”

Please replace the paragraph beginning at page 11, line 31, with the following amended paragraph:

“Figure [[6]]4:(A) shows a photograph of a reference fabric sample stained with carrot juice and treated with medium and a commercially available surfactant (above) and a test fabric sample stained with carrot juice and treated with oxidoreductase of the invention and a commercially available surfactant (below).
(B) shows a photograph of a reference fabric sample stained with carrot juice and treated with medium (above) and a test fabric sample stained with carrot juice and treated with 50 μ l oxidoreductase of the invention (below).”

Please replace the paragraph beginning at page 13, line 5, with the following amended paragraph:

“The sequence obtained comprises an open reading frame (ORF) of 1083 bp, starting from 41 is represented in ~~Figure 1~~ and SEQ ID NO:1. The ORF encodes an enzyme of 361 amino acids, the sequence of which is depicted in ~~Figure 2~~ and SEQ ID NO:2.”

Please replace the paragraph beginning at page 13, line 12, with the following amended paragraph:

“The pH optimum was determined to be 3.6, the temperature optimum was determined to be 34°C. The result is shown in Figure [[4]]_2.”

Please replace the paragraph beginning at page 14, line 10, with the following amended paragraph:

“Figure [[5]]_3 shows a GC chromatogram of the volatile nor-isoprenoids from the conversion of β,β -carotene.”

Please replace the paragraph beginning at page 14, line 21, with the following amended paragraph:

“The results are shown in Figure [[5]]_3 and Table 1. As can be seen, β,β -carotene is converted in high yields to nor-isoprenoids by enzymes obtained from *L.irina*.”

Please replace the paragraph beginning at page 15, line 15, with the following amended paragraph:

“The result is shown in [[figure 3]] Figure 1. After 30 minutes, the substrate had been almost completely converted. (-■-) shows the degradation of β,β -carotene, (-◇-) the increase in β -ionone. The conversion of α -carotene (yielding α -ionone as the main product), capsanthin, and lycopene proved the extremely broad substrate range of the oxidoreductase.”

Please replace the paragraph beginning at page 17, line 19, with the following amended paragraph:

“The initial testing showed significant performance on carrot stains of the carotene-specific oxidoreductase of the present invention under optimal conditions (buffer at pH 3.5 at

28°C for approximately 18 hours). An extended soak in 1% Tween™ solution reduced the visual carrot removal. A soak in just water resulted in no visual performance on the stain. See Figure [[6]] 4 (A) and (B), top fabric sample.”

Please replace the paragraph beginning at page 18, line 9, with the following amended paragraph:

“The results are shown in [[figure 6]] Figure 4. The arrow shows the point of application of the oxidoreductase.”

Amendments to the Drawings:

The attached sheets of drawings include the deletion of Figs. 1 and 2, and the renumbering of the remaining drawings as Figs. 1-4.

Attachment: Replacement Sheets